**Financial Forecasting**

**Recursion:**

* **Recursion** is a technique where a function **calls itself** to solve smaller subproblems of the main problem.
* It is especially useful for problems that can be broken down into **repetitive steps** or **smaller instances** of the same task.

*NOTE: Setup and Implementation are found in the* ***“FinancialForecasting.java”*** *file*

**Analysis:**

* **Time Complexity**: O(n) - One recursive call per year.
* **Space Complexity**: O(n) - due to recursive call stack.

**Optimizing Recursion:**

* Use Iteration Instead of Recursion:
  + - Simple loop avoids call stack buildup.
* Memoization (for more complex problems):
  + - Store results of previous computations in a map or array to avoid repeated calculations.